

CLEAN VERSION OF THE AMENDED CLAIMS

SUB 1
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An internal high-pressure deformation method comprising

furnishing a first work piece part with a first flange having a first sealing face;

furnishing a second work piece part with a second flange having a second sealing face, wherein the first sealing face is matching the second sealing face to deliver a sealing connection between the first flange and the second flange;

disposing the first workpiece part and the second workpiece part such that the first sealing face is disposed opposite to the second sealing face;

surrounding the first workpiece and the second workpiece by engraving surfaces forming a mold;

pressing the first sealing face against the second sealing face such that the connection between the first flange and the second flange is sealing relative to a fluid pressurizing agent;

feeding pressurizing agent into a volume delimited by the first workpiece and by the second workpiece;

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deforming the first workpiece and the second workpiece jointly by internal high-pressure deformation against the engraving surfaces and effected by the pressurizing agent;

moving the parts of the engraving surfaces away from each other to allow removal of the deformed first workpiece and of the deformed second workpiece from the mold for production of an undercut hollow body.

2. The internal high-pressure deformation method according to claim 1 further comprising

inserting a third workpiece part adjoining the first flange region into the deformation tool; and

pressing the first flange against the third flange in a pressurizing agent sealing way;

deforming the third work piece part together with the first work piece part and the second work piece part.

3. The internal high-pressure deformation method according to claim 1 further comprising

allowing a relative motion toward each other of the first work piece part and of the second work piece part during the pressurizing agent sealingly pressing in the region of the first flange and of the second flange.

4. The internal high-pressure deformation method according to claim 1 further comprising performing a stamping in the region of the first flange and of the second flange during the pressurizing agent sealingly pressing together of the workpiece parts for influencing a flow of the material and/or for supporting a sealing and/or for accomplishing a positional fixation between the individual workpiece parts.

6. The internal high-pressure deformation method according to claim 1 further comprising feeding pressurizing agent through a docking connection between a pressure feed and an opening in the second workpiece part.

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10. The apparatus according to claim 7 wherein the tool regions for
AB insertion of the workpiece do not coincide with the tool planes for removal
of the hollow body.

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DB 11. An internal high-pressure deformation method for the production of
undercut hollow bodies by employing at least two workpiece parts (1,2),
which two workpiece parts (1,2) are pressed pressurizing agent sealingly in
the region of a flange (1. 1,1.2) and which two workpiece parts (1,2) are
deformed jointly by the internal high-pressure deformation, wherein the
deforming is performed against an engraving surface, wherein the parts of
the engraving surface are movable away from each other in a direction of
intersecting axes.

12. The internal high-pressure deformation method according to claim 11
wherein more than two workpiece parts (1,2) adjoining each other in the
flange region are inserted into the deformation tool and are pressed against
each other pressurizing agent sealingly in the flange region and are
deformed.

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13. The internal high-pressure deformation method according to claim 11 wherein the work piece parts (1,2) allow a relative motion toward each other during the pressurizing agent sealingly pressing in the flange region (1.1, 2.1).

A3 14. The internal high-pressure deformation method according to claim 11 wherein a stamping is performed in the region of the flanges (1.1, 2.1) during the pressurizing agent sealingly pressing together of the work tool pieces (1,2) in order to influence the flow of the material and/or to support the sealing and/or to accomplish a positional fixation between the individual workpiece parts (1,2).

~~15.~~ 15. An apparatus for production of undercut hollow bodies, wherein the apparatus is subdivided in tool regions (E1, E2, E3, E4) corresponding to the workpiece form to be generated and the number of workpiece parts (1, 2), wherein the tool regions (E1, E2, E3, E4) are disposed in different planes, wherein one or several tool regions (E1, E2, E3, E4) are subdivided in

different segments (S, S1, S2, S3, S4) according to the shape of the workpiece, wherein the segments (S, S1, S2, S3, S4) are movable away from the hollow body (W) for removal of the hollow body (W) from the mold.

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Concluded

